

Abstract

A multi-channel surround sound expansion method is proposed. First, a two-channel stereo sound is read and then expanded into a Front L channel, a Front R channel, a Front M channel, a Rear L channel and a Rear R channel
5 sound signals by means of the Hafler technique. Next, the sound reverberation technique is used to let the Rear L channel and Rear R channel sound signals generate sound with echo/reverberation. Finally, the Rear L channel and Rear R channel sound signals are delayed by a first time value, and the Front M channel sound signal is advanced by a second time value to emphasize the front
10 sound field and the human voices, thereby producing a 3D sound field surrounding a listener.